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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/849,152

05/04/2001

Peter R. McCann

KLR: 1016.066

9708

7590

11/20/2002

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EXAMINER

ALLEN, DENISE S

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,152

Applicant(s)

MCCANN ET AL.

Examiner

Denise S Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-87 is/are pending in the application.
- 4a) Of the above claim(s) 55-58, 83 and 84 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54, 59-82 and 85-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Invention I in Paper No. 6 is acknowledged. Because applicant did point out any supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 55 – 58, 83, and 84 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference 72 (page 6 line 6). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 7 – 11, 13, 14, 16 – 18, 28 – 30, 32, 34 – 39, 41, 43 – 45, 59 – 61, 63, 64, 66 – 70, 72, 73, 75, and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by Rumbaugh.

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Regarding claims 1, 10, 11, 28, 29, 37, 38, 59, 60, 68, and 69, Rumbaugh teaches a fiber optic probe (Figure 1 reference 10) comprising: a probe body having a tip (reference 12) for selectively approaching a device under test; an elongate optical fiber (reference 16) extending longitudinally along said body and extending beyond said tip (reference 16a); and said probe body being sized such that at least a major portion of said elongate optical fiber is maintained free from freely moving with respect to said probe body (Figure 5).

Regarding claims 2, 10, 30, 39, 61, and 70, Rumbaugh teaches said probe body defining a first terminal portion proximate said tip having a first cross sectional area, a second terminal portion proximate the opposing end of said probe body from said tip having a second cross section area and an intermediate portion located generally half way between said first terminal portion and said second terminal portion having a third cross section area, wherein said first cross sectional area is less than said second cross sectional area, and said third cross sectional area is less than said second cross sectional area (Figure 1, the cross sectional area of the tip end is smaller than the cross section area of the connector end, and that the cross sectional area of the middle area is also smaller than the cross sectional area of the connector end).

Regarding claims 4, 13, 28, 41, 63, and 72, Rumbaugh teaches said elongate optical fiber longitudinally adjustable with respect to said body (column 3 lines 7 – 27).

Regarding claims 5, 14, 32, 37, 64, and 73, Rumbaugh teaches a support (Figure 1 reference 22) for selectively maintaining said optical fiber from freely moving longitudinally with respect to said probe body.

Regarding claims 7, 16, 34, 43, 66, and 75, Rumbaugh teaches said probe body being sized such that substantially all of said elongate optical fiber is maintained free from freely moving with respect to said probe body (Figure 5).

Regarding claims 8, 17, 35, 44, and 59, Rumbaugh teaches a major portion of said probe body having a substantially constant vertical profile (Figure 1).

Regarding claims 9, 18, 36, 45, 67, 68, and 76, Rumbaugh teaches said probe body defining a cavity (Figure 1 reference 20) therein through which said elongate fiber extends, wherein a major portion of said cavity closely surrounds said elongate optical fiber.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6, 12, 15, 19 – 27, 31, 33, 40, 42, 46 – 54, 62, 65, 71, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rumbaugh in view of Yarush et al.

Rumbaugh teaches a fiber optic probe as described above. Rumbaugh does not teach said probe body proximate said tip including an inner material closely surrounding said elongate optical fiber, said probe body proximate said tip including another layer surrounding said inner material, wherein said inner layer of material has a greater tendency to maintain its cross sectional area while being flexed up to approximately 90 degrees than said another layer while being flexed, when said another layer is free from said inner layer of material. Rumbaugh further

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does not teach a substantial portion of said probe body being readily bendable to adjust the angle of said probe tip with respect to the probe body.

Regarding claims 3, 12, 19 – 27, 31, 40, 49, 62, and 71, Yarush et al teaches said probe body (Figure 12h reference 322) proximate said tip (reference 330) including an inner material closely surrounding said elongate optical fiber (reference 326 is a fiber optic cable which is inherently an optical fiber with a material closely surrounding it), said probe body proximate said tip including another layer (reference 332) surrounding said inner material, wherein said inner layer of material inherently has a greater tendency to maintain its cross sectional area while being flexed up to approximately 90 degrees than said another layer while being flexed (column 19 lines 9 – 13), when said another layer is free from said inner layer of material. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the inner and another materials of Yarush et al in the probe body of Rumbaugh in order to protect the fiber while bending the probe.

Regarding claims 6, 15, 24, 33, 42, 46 – 54, 65, and 74, Yarush et al teaches a substantial portion of said probe body being readily bendable (Figure 12h reference 332) to adjust the angle of said probe tip with respect to the probe body (dotted lines in Figure 12h). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the flexibility of Yarush et al in the probe body of Rumbaugh in order to change the position of the tip of the probe body with respect to an item being measured.

Claims 77, 78, 80, 81, and 85 – 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rumbaugh in view of Wach et al.

Rumbaugh teaches a fiber optic probe as described above. Rumbaugh does not teach a structure that permits selective rotation of at least a portion of said optical fiber with respect to said probe body.

Wach et al teaches a structure that permits selective rotation of at least a portion of said optical fiber with respect to said probe body (column 29 lines 11 – 13). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the structure of Wach et al in the fiber probe body of Rumbaugh in order to rotate the fiber within the probe body.

Claims 79 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rumbaugh in view of Yarush et al and further in view of Wach.

Rumbaugh in view of Yarush et al teaches a fiber optic probe as described above. Rumbaugh in view of Yarush et al does not teach a structure that permits selective rotation of at least a portion of said optical fiber with respect to said probe body.

Wach et al teaches a structure that permits selective rotation of at least a portion of said optical fiber with respect to said probe body (column 29 lines 11 – 13). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the structure of Wach et al in the fiber probe body of Rumbaugh in view of Yarush et al in order to rotate the fiber within the probe body.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise S Allen whose telephone number is (703) 305-7407. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

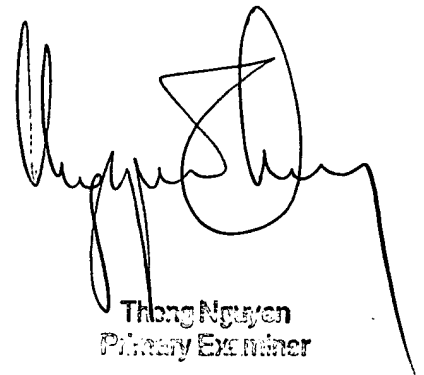
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Denise S Allen
Examiner
Art Unit 2872



dsa

November 17, 2002



Thong Nguyen
Primary Examiner